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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/451,699 | 11/30/1999 | CHRIS K WENSEL | 073388.0122 | 9403 |

7590 10/13/2004

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EXAMINER

WON, MICHAEL YOUNG

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2155

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/451,699

Applicant(s)

WENSEL, CHRIS K

Examiner

Michael Y Won

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-27 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-27 have been re-examined and are pending with this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Butman et al. (US 587665 A).

Independent:

As per claim 1, Butman teaches a method for traversing a boundary (see col.1, lines 6-10) in a distributed processing environment (see Fig.1; col.1, line 10: "disparate

network"; and col.8, line 46: "dynamic distributed network"), comprising: storing connection protocol information in a connection properties table (see Fig.6b and col.20, line 66 to col.21, line 1) at a client network for each boundary which may be traversed by the client network (see col.15, line 59 to col.16, line 10); receiving a request from a client object (see col.17, line 64 to col.18, line 2: "point to or include an object") on the client network for access to a server object on a server network (see col.16, lines 13-18: essentially each client/server can receive or request so long as it is within the domain server by the communication server A1), the server network having a server network boundary (see Fig.1: each network has it's own boundary); locating an entry in the connections property table corresponding to the requested server object (see col.21, lines 37-56); formatting a boundary traversal key from the connection protocol information associated with the located entry in the connection properties table (see col.21, lines 1-10 and col.23, lines 52-67), the boundary traversal key including information to traverse a boundary controlling access to the server network (implicit: see col.16, lines 23-27); and forwarding the request for access and the boundary traversal key to the boundary controlling access to the server network (implicit).

As per claim 12, Butman teaches of a distributed computing system (see Fig.1; col.1, line 10: "disparate network"; and col.8, line 46: "dynamic distributed network"), comprising: a client object (see col.17, line 64 to col.18, line 2: "point to or include an object") on a first network operable to request access to a server object on a second network (see col.16, lines 13-18: essentially each client/server can receive or request so

long as it is within the domain server by the communication server A1); a third network connecting the first network to the second network (see Fig.1a: A1, A2, & A3 and col.15, lines 6-9); a boundary device (see Fig.1; C1-C9) controlling access to the second network (see col.16, lines 18-30); a connections properties table in the first network and including an entry for each of one or more second networks accessible by the first network (see Fig.6b; Fig.7a; col.21, lines 44-48 & 52-56; and col.24, lines 11-14), the connections properties table including connection protocol information for accessing the one or more second networks (see Fig.6b and col.20, line 66 to col.21, line 1); a connection manager operable to generate a boundary traversal key for requests for access to server objects that have a corresponding entry in the connections properties table, the boundary traversal key generated from the corresponding connection protocol information (see col.21, lines 1-10 and col.23, lines 52-67), the boundary traversal key including information to traverse the boundary device controlling access to the second network (implicit: see col.16, lines 23-27).

As per claim 23, Butman teaches of a distributed processing system (see Fig.1; col.1, line 10: "disparate network"; and col.8, line 46: "dynamic distributed network") with transparent boundary traversal, comprising: a client system operable to request access to a plurality of server systems (see Fig.4 and col.16, lines 13-18), at least one of the server systems having a boundary device (see Fig.1; C1-C9) for controlling access to the server system by the client system (see col.16, lines 18-30); a connection properties table stored in a private directory (see Fig.4, #08) on the client system (see

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Fig.6b and col.20, line 66 to col.21, line 1) a, the connection properties table including: an identification range for identifying the at least one server system having the boundary device (see Fig.6b, #68; col.21, lines 52-56; and col.23, lines 57-59); a boundary type for identifying a type of the boundary device (see col.16, line 64 to col.17, line 8 and col.21, lines 44-48); authentication information for uniquely identifying the client system to the boundary device and a requested server system (see col.20, line 64 to col.21, line 18); and attributes for providing traversal information required by the boundary device (see Fig.6b, #66 & #60: ID's; and col.19, lines 14-18); a boundary traversal key generator operable to generate a boundary traversal key for gaining access to the requested server system through the boundary device, the boundary traversal key generated from the connection properties table (see col.21, lines 1-10 and col.23, lines 52-67) in response to the boundary traversal key generator locating an entry matching the requested server system (implicit).

Dependent:

As per claim 2, Butman further teaches of determining a connection type from the located entry in the connections property table (implicit: see col.12, lines 56-64).

As per claim 3, Butman further teaches of passing the request for access to an object request broker (see Fig.4, #20) after the client network determines that the request for access is to an object residing outside the client network (see col.16, lines 13-18).

As per claim 4, Butman further teaches wherein the object request broker locates the entry, formats the boundary traversal key, and forwards the request for access and the boundary traversal key to server network (see claim 1 rejection above).

As per claim 5, Butman further teaches wherein storing connection protocol information includes storing a boundary identifier, a connection type, authentication information, and connection attributes in the connection properties table (see claim 23 rejection above).

As per claims 6, 7, and 8, Butman further teaches wherein locating an entry includes matching an Internet Protocol address, a domain name, and a port address for the server object to the boundary identifiers stored in the connection properties table (see col.8, lines 51-64 and col.37, lines 4-24).

As per claim 9, Butman further teaches wherein formatting the boundary traversal key includes building the boundary traversal key from the authentication information and the connection attributes in a format defined by the connection type (see col.21, line 65 to col.22, line 14).

As per claim 10, Butman further teaches wherein forwarding the request includes forwarding the request for access and the boundary traversal key to the server network boundary (see claim 1 rejection above).

As per claim 11, Butman further teaches of further comprising receiving the request for access and the boundary traversal key at the server network boundary (implicit: see claim 10 rejection above); allowing access to the server object if the

server network boundary accepts the boundary traversal key (implicit: see col.21, lines 41-48); and denying access to the server object if the server network boundary rejects the boundary traversal key (implicit: see col.21, lines 41-48).

As per claim 13, Butman further teaches of further comprising a default connection manager operable to establish a connection between the client object and the server object using a default protocol for requests for access to server objects that do not have a corresponding entry in the connection properties table (see col.23, lines 12-15).

As per claim 14, Butman further teaches wherein the third network is an Internet (see Fig. 2b and col.14, lines 44-47).

As per claim 15, Butman further teaches of further comprising an object request broker operable to facilitate communications between the client object and the server object across the third network (see claim 3 rejection above).

As per claim 16, Butman further teaches wherein the connection manager is part of the object request broker (implicit: see Fig.5).

As per claim 17, Butman further teaches wherein the connection properties table includes a boundary identifier for identifying the server object on the second network; a connection type for identifying the type of connection protocol used by the second network; authentication information for providing identity and credential information to the second network; and attributes for providing boundary traversal key information to the second network (see claim 23 rejection above).

As per claim 18, Butman further teaches wherein the connection properties table is stored in a private directory on the first network (see claim 23 rejection above).

As per claim 19, Butman further teaches wherein the boundary traversal key is generated from the authentication information and the attributes from an entry in the connection properties table corresponding to the server object on the second network (see claim 1 rejection above).

As per claim 20, Butman further teaches wherein the boundary identifier is an identifier selected from the group consisting of an Internet protocol address, an Internet protocol address range, a partial Internet protocol address, a domain name, a partial domain name, or a port address and a port address range (col.8, lines 51-64 and col.37, lines 4-24).

As per claim 21, Butman further teaches wherein the connection type indicates a TCP/IP connection, an SSL connection, an HTTP Tunneling connection, or a UDP/IP connection (see col.14, lines 44-47 and col.15, lines 52-58).

As per claim 22, Butman further teaches wherein the authentication information includes user identification and a password (see col.8, lines 9-13).

As per claim 24, Butman further teaches of further comprising a network for connecting the client system to the server system (see Fig.1a, #A1-A3).

As per claim 25, Butman further teaches of further comprising an object request broker operable to facilitate communications between the client object and the server object across the network (see claim 3 rejection above).

As per claim 26, Butman further teaches wherein the network is an Internet (see Fig. 2b and col.14, lines 44-47).

As per claim 27, Butman further teaches wherein the boundary traversal key generator is part of the object request broker (implicit: see col.3, lines 55-64; If prior art was employed with the teachings of Butman's key creation, then the boundary traversal key would generated at the proxy server, therefore at the object request broker).

Response to Arguments

3. In response to the argument regarding claims 1, 12, and 23, specifically that Butman does not teach of a connection property table at the client side communication server, clearly, Butman teaches this limitation. With reference to Fig.3 (alternate embodiment of the invention), Butman teaches of a domain communication server "acting as the primary domain communications server for a network of clients" (see col.15, lines 37-40), therefore considered intra to the network of clients. As such, Butman clearly teaches of a *"connection property table at the client side"*.

Similarly, with regards to the argument that Butman does not teach of a client-side traversal of boundaries or creation of a boundary traversal key, Butman as supported the by the reference locations provided in the office action and in response to argument above, teaches of a client-side domain communication server (see Fig.3),

encompassing all the functionality as taught by Butman (see col.20, line 66 to col.21, line 64), and further creating a boundary traversal key (see col.21, lines 9-10 and col.23, lines 50-55).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

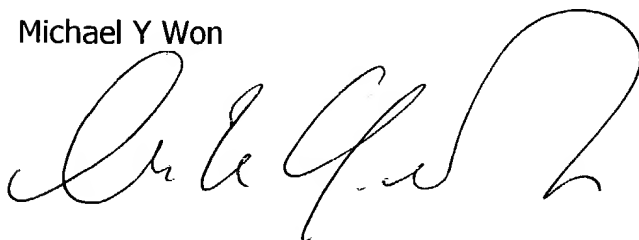
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y Won whose telephone number is (571) 272-3993. The examiner can normally be reached on M-Th: 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Y Won



October 5, 2004



BHARAT BAROT
PRIMARY EXAMINER